

DOCUMENT RESUME

ED 055 335

24

EA 003 677

AUTHOR Gallessich, June; And Others
TITLE The Team-Teaching Problem Checklist.
INSTITUTION Texas Univ., Austin. Research and Development Center
for Teacher Education.
SPONS AGENCY National Center for Educational Research and
Development (DHEW/CE), Washington, D.C.
BUREAU NO BR-5-0249
PUB DATE 71
CONTRACT OEC-6-10-108
NOTE 18p.
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS Administrative Problems; Check Lists; *Educational
Environment; Educational Innovation; *Elementary
Schools; Factor Analysis; Feedback; Individualized
Instruction; *Interprofessional Relationship;
*Teacher Attitudes; *Team Teaching

ABSTRACT

This study describes Team Teaching Problem Checklist (TTPC), an instrument developed for and used in an investigation of two elementary school team teaching projects in which the team structure was designed to facilitate individualization of instruction. Twelve teams were involved in the project, each composed of teachers of the same grade level. The TTPC, consisting of 70 items with 7-point rating scales, was administered to all teachers, principals, and student teachers assigned to project schools. The checklist identified problem areas in a team project, the degree to which different problems were important within a particular school or team, and attitudinal changes over time. The results demonstrate the need for administrative sanction and active support that would provide the environment necessary to sustain an innovation long enough for its usefulness to be assessed. (Author/NLP)

THE TEAM-TEACHING PROBLEM CHECKLIST¹
June Gallessich, Ira Iscoe, and Jean York²
The University of Texas at Austin
1971

1/2

ED055335

Although team teaching continues to grow in popularity, there is little evidence of its effectiveness. Many questions must be asked, but at this time it seems especially important to find out how teachers react to team teaching. Heathers³, Nystrand and Bertolaet⁴, and Joyce⁵ have reviewed the studies of teacher attitudes toward team teaching and noted the weaknesses in design and methodology. A few of the more careful investigations are reviewed here.

In one of the earliest studies of teacher attitudes, Ackerlund⁶ questioned 250 teachers regarding preference for self-contained or team-teaching classrooms and identified a relationship between grade taught and preference. He found a strong preference for the self-contained classroom in teachers of kindergarten and grades one and two. Opposition to the self-contained organization began with teachers of the third grade and increased progressively in grades four, five, and six.

Davis⁷ used a number of specially constructed instruments to test for changes in role perception following participation in a team-teaching project in a secondary school. He found no statistically significant changes in stated role perceptions, but he found significantly increased negativism toward team teaching in males, teachers without advanced degrees, teachers with five to ten years teaching experience, and junior high teachers.

In another study (Norwalk Plan⁸) of attitudes of teachers involved in a team-teaching project, the teachers indicated the greatest gain from project participation was the freedom from non-professional tasks which was provided through aides. The time gained was reportedly used in planning, material preparation, and teaching. The opportunity to specialize was

highly valued by these teachers as well as the possibility of increase in pay. The area of most difficulty was acceptance of leadership.

McIntosh and Ryan⁹ reported that of forty-one teachers involved for several years in team teaching, more than 90% found team teaching decidedly preferable to the self-contained classroom in providing satisfaction and challenge in teaching, as a means of trying new methods and ideas, in sharing responsibilities and association with fellow team members, and in freedom to teach in the area of greatest interest and skill. As in the Norwalk Study⁸ these teachers found the greatest value in team teaching was the additional clerical assistance (either a half or a full-time aide was provided each team). Teachers were ambivalent as to the impact of team teaching upon pupil-teacher relationships and opportunities for working with pupils on personal problems. The teachers generally agreed, however, that compared to the self-contained classroom, team teaching is superior in challenging students, developing motivation and subject matter appreciation, facilitating peer relations, and meeting individual needs. These teachers were less positive as to the effect of team teaching upon pupil attendance, emotional adjustment, and discipline.

Myers¹⁰ developed an instrument for studying the use of team meeting time; he found that many teams waste time on topics of limited importance.

The present study describes an instrument, the Team-Teaching Problem Checklist (TTPC)¹¹, which was developed and used in an investigation of on-going team teaching projects in two elementary schools in which the team structure was designed to facilitate individualization of instruction.¹² Twelve teams were involved in the study; each team was composed of the

teachers of one grade level. The investigators focused on several areas of research. Gallessich and Iscoe¹³ studied the impact upon student teachers of training in team-teaching schools and the interpersonal dynamics of teaching teams (Gallessich, Iscoe, and Payne¹⁴). The effect of team teaching upon pupil adjustment was investigated also (Gallessich and Schmidt¹⁵ and Schmidt and Gallessich¹⁶). From her observations of teachers who were adapting to the team organization, York¹⁷ developed instructional modules for pre-service and in-service training in the background, purposes, and philosophy of team teaching.

INSTRUMENT DEVELOPMENT

Interviews with teachers participating in the team-teaching project indicated a number of problem areas; the magnitude of any one problem seemed to differ between teams and schools. The TTPC was constructed to identify and quantify those areas of most concern in order to provide project teachers with usable feedback. The rationale was that this feedback could be helpful in pinpointing and strengthening problem areas.

Items describing team-teaching problems were generated from teacher interviews conducted over a period of several months. A pool of 75 items was selected to represent distinctive problem areas, including administration, instruction, media, pupils, and team relations. The items were used to form a preliminary inventory which was sent to a dozen judges: Title III and university consultants, principals, and related administrative officials. These judges were asked to study the statements and mark the 50 items they believed to be the most relevant. They were also asked to add any additional

problems which they believed would make the list more comprehensive. From this survey the 65 items which received the highest concensual validity were selected for the TTPC. Five summary items were added to obtain teacher ratings of team effectiveness and attitude toward team teaching. The final TTPC, with seven-point rating scales, was then administered to all teachers, principals, and student teachers assigned to project schools.

The TTPC was administered to the regular teachers at the beginning and at the end of the school year. A different group of student teachers was assigned to the schools each semester; therefore, pre-and post-tests were administered to each group at the beginning and end of each semester. The TTPC was also administered to the faculties of three additional team-teaching schools. Using the protocols from all respondents ($N = 351$), a factor analysis of the 70 items was performed and four factors were identified:¹⁸

Factor 1 - General Attitude Toward Team Teaching Project and Its Impact on Children

Factor 2 - Extra-Team Relationships--with Consultants, Research Personnel (R&D and Title III), and Media Problems

Factor 3 - Intra-Team Relationships

Factor 4 - Administration Problems

The items contributing more than 25% of their variance to each of these factors are listed in Table 1.

A test-retest reliability index was obtained by administering the TTPC a third time to 60 regular teachers two weeks after the second administration. The reliability coefficients obtained for the four factors were .89, .81, .94, and .85, respectively.

TABLE I
TEAM-TEACHING PROBLEM CHECKLIST
Factor Loadings

Factor 1 General attitude toward team teaching project and its impact on children.

<u>Item</u>	<u>Loading</u>
19. It is confusing to the pupils to have several teachers.	.83
21. In the team approach, we don't get to really know and understand the children.	.79
8. The team approach is not good for the age group I work with.	.76
20. Children in this project miss out on some academic fundamentals	.76
7. Our children are upset by all these innovations.	.74
29. We feel the pupils are more secure in a self-contained classroom.	.74
22. The problem child becomes more difficult with the team organized approach.	.67
70. My own satisfaction with the team approach	.66
11. The below-average child is neglected in the team approach.	.64
69. My opinion of the basic philosophy underlying team teaching is	.60
55. Large group activities are poor learning experiences.	.59
44. We waste too much time transferring pupils from room to room.	.58
13. Too many innovations are upsetting to our faculty.	.57
2. We don't fully understand what we should be doing in the project.	.54
42. We feel under pressure to make too many changes in a very short period.	.54
28. At times, we wish we could have more privacy.	.52

Factor 2 Extra-Team Relationships--with consultants, research personnel, (R&D and Title III), and media problems.

47. We need to know more about specific instructional uses of new media.	.76
30. Not enough technical help in using new materials and equipment.	.73
61. We don't know exactly what media are available.	.70
38. Consultants should show instead of just telling us what to do.	.63
63. The consultants don't coordinate their work with us.	.62
5. We don't know who's supposed to help us with new media.	.61
51. We need more help in individualizing mathematics.	.58
17. The new Title III resources aren't related to our curriculum needs.	.57
65. The consultants aren't available when we need them.	.56
18. It is hard to understand what the research goals really are.	.55
6. Research activities sometimes interfere with our work.	.54
52. The project consultants seem to make conflicting suggestions at times.	.53

Table 1 (continued)

7

Factor 3 Intra-team Relationships

<u>Item</u>	<u>Loading</u>
23. Lack of team harmony affects our planning sessions.	.82
58. We can't seem to resolve our problems in our team sessions.	.81
59. Team sessions are very frustrating.	.78
66. My rating of my team's effectiveness in team planning.	.77
39. Some of our team members are closed to new ideas.	.75
12. Other team members don't carry their load.	.72
40. Some members of our team tend to dominate our planning.	.71
9. Leadership on our team could be improved.	.69
54. The distribution of responsibilities among team members seems inequitable.	.69
48. Our planning sessions "drift" with no real focus.	.66
31. We need someone outside our team to help us work together better.	.62
57. We can't seem to agree as to the goals of team teaching.	.59
60. We can't seem to agree as to the purposes of individualizing instruction.	.59
67. My rating of my team's effectiveness in individualizing instruction.	.55

Factor 4 Administration Problems

1. We don't always have adequate administrative support for our project.	.76
33. We don't have good communication between administrators and teachers.	.73
14. Supervisors don't really understand our teaching strategies in individualizing instruction.	.70
35. Criticisms of local educators are demoralizing at times.	.65
62. The reporting system we are now using doesn't fit the needs of the team approach.	.51

PROBLEMS IDENTIFIED

At the beginning of the school year the most important problem to the twelve teaching teams was lack of pupil evaluation techniques appropriate to the project's goal of individualizing instruction (see Table 2). Materials for slow learners and consultative assistance were urgently needed, as well as more time and more appropriate spaces for team teaching and individualizing instruction. Teachers did not find that pupils were disturbed by the team organization; team relations did not appear troubled. Student teachers and observers presented no problem to the faculties.

At the end of the year of intensive study, the TTPC indicated that the need for more appropriate evaluation and reporting techniques was still urgent as well as the need for more instructional materials. The need for more aides was perceived to be the most difficult problem at this time. (Each team had the services of an aide for twenty hours each week.) New problems included difficulties with curricular consultants and media maintenance (see Table 3).

ANALYSES OF FACTOR SCORES

The TTPC results reported so far have been of the pooled data from the two schools participating in the project. These schools were at different stages of team development. Team teaching had been in progress in School A for about four years and was well-established. The impetus for team teaching had come from the teachers of one grade and the program had spread for the most part voluntarily throughout the school. School B, under the leadership of a charismatic principal who was a strong proponent of team teaching, had begun to form teams during the year preceding the

TABLE 2

TEAM-TEACHING PROBLEM CHECKLIST

Pre- and Post-Test Mean Scores of
Problems Rated Most Important at Beginning of the Year
(N = 60, faculties of two schools)
Seven-point rating scales, high scores indicating
Problem areas

Item	Problem	Means	
		Pre-Test	Post-Test
64.	We need pupil evaluation techniques especially planned for the individualized instruction through team teaching approach.	4.98	5.38
16.	We need more materials for the slow learners.	4.82	5.43
45.	We can't find enough time to plan properly.	4.81	4.56
34.	We need time within the day for planning because we're too tired after school	4.75	4.97
43.	Architectural changes are necessary for team teaching.	4.68	4.40
51.	We need more help in individualizing mathematics.	4.58	4.37
62.	The reporting system we are now using doesn't fit the needs of the team approach.	4.56	5.27
24.	We need more aides.	4.34	5.57
4.	We are having difficulties in achieving non-gradedness.	4.33	4.67
41.	We don't have enough time for parent conferences.	4.25	3.83
47.	We need to know more about specific instructional uses of new media.	4.14	4.05
53.	We need more help in individualizing language arts.	4.12	4.21
36.	There's not enough material available to make instruction a really individualized affair.	4.05	4.46

TABLE 3

Team-Teaching Problem Checklist

Problem Rated Important at the End of the
School Year
(Mean of 4.00 or higher)
But Not at the Beginning of the Year
(N=60, Faculties of Two Schools)
Seven-Point Rating Scales, High Scores
Indicating Problem Areas

Item	Problem	Mean
3.	We need more help in individualizing social studies.	4.51
27.	The new equipment is not kept in running order.	4.00
38.	Consultants should show instead of just telling us what to do.	4.22
49.	We don't have enough time for small group instruction.	4.02

study. In the year of the research a new principal with no training or experience in team teaching took over School B. The teachers of School B, therefore, lost an important motivational force. The factor scores on the TTPC clearly reflect the differences in climate between the two schools as well as differences between teams and changes during the school year (see Tables 4 and 5).

Factor 1, General Attitude Toward Team Teaching and Its Impact on Children, was a sensitive index of school climate. The faculty of School A was extremely positive (pre-test $Z = .52$ and post-test $Z = .61$), while the faculty of School B was originally negative but moderately positive by the end of the year (pre-test $Z = -.26$; post-test $Z = .11$). When the scores from the two schools were pooled for pre-post comparison (Table 5), the post-test mean was significantly more positive ($P < .005$) than the pre-test mean score.

Scores on Factor 2, Attitude Toward Extra-Team Relations, were positive for School A (pre-test $Z = .20$; post-test $Z = .57$) while the results for School B at both times were negative (pre-test $Z = -.40$; post-test $Z = -.68$). Pooled scores in the pre-post comparisons were not significantly different.

On Factor 3, Attitude Toward Intra-Team Relations, the pre- and post-mean scores for School A were fairly positive ($Z = .32$ and $.28$). The scores for School B moved from neutral ($Z = .02$) to negative on the post-test ($Z = -.18$). No significant difference was found between pooled pre- and post-test scores, however.

TABLE 4

TEAM-TEACHING PROBLEM CHECKLIST FACTOR SCORES OF
SCHOOLS A AND B AT THE BEGINNING AND AT THE END
OF THE SCHOOL YEAR
(Positive scores indicate positive attitudes)

SCHOOL A (N = 31)		
Factor	Pre-test Z Score	Post-test Z Score
1	.52	.61
2	.20	.57
3	.32	.28
4	.06	-.17
SCHOOL B (N = 29)		
Factor	Pre-Test Z Score	Post-Test Z Score
1	-.26	.11
2	-.40	-.68
3	.02	-.18
4	-.06	-.38

TABLE 5

TEAM-TEACHING PROBLEM CHECKLIST
 ANALYSIS OF VARIANCE OF POOLED PRE- AND POST-TEST
 SCORES OF SCHOOLS A AND B
 (N = 60)
 (Postive scores indicate positive attitudes)

Factor	Pre-test Z Score	Post-test Z Score	F Test of Probability
1	.2753	.5398	$P < .005$
2	.1386	.0862	NS
3	.3382	.1534	NS
4	-.0954	-.3709	$P < .0006$

On Factor 4, Attitude Toward the Central Administration, both schools reflected a growing negativism, reflected in the comparison of pre- and post-test pooled scores ($P < .0006$).

The TTPC factor scores of the twelve teams involved in the project were compared and found to differentiate clearly between teams which were functioning harmoniously and teams with interpersonal problems. For example, one team in School A scored at the 37th percentile on Factor 3 (compared to the other 11 teams) at the beginning of the year and at the 19th percentile after a year of progressive interpersonal difficulties. A team in School B which had initial success and excellent potential as a team verified the deterioration of team relationships in their Factor 3 scores; originally this team scored at the 47th percentile but by the end of the year ranked last on Factor 3.

DISCUSSION

The TTPC identified problem areas in a team project, the degree to which different problems were important within a particular school or team, and attitudinal changes over time. The major problems stemmed largely from the inability of a traditional system to provide the specialized materials and techniques needed to individualize instruction. Teachers reported communication problems with administrators and were concerned over lack of administrative understanding and support of the team project (see Factor 4 items on Table 1). However, despite sharply increasing negativism toward the central administration in both schools and increasingly negative attitudes in one school toward both extra-team and intra-team relations, the attitude of both faculties toward team teaching became more positive by the

end of the year. Apparently these teachers found that they could teach more effectively within the team structure and considered the team approach beneficial to pupil academic development and mental health (Factor 1). Probably some of the enthusiasm of teachers in School A was related to their active role in initiating the project; however, about half of the teachers who were in School A at the time these data were collected had been assigned to the school after the project began and some of these new teachers were quite skeptical about team teaching (Gallessich, Iscoe, Payne¹⁴). It seems especially significant that the faculty of School B, although demoralized by loss of their strongest team-teaching advocate, became more positive toward team teaching by the end of the year.

At the time that the results of the TTPC were presented to the schools involved in the study, little help was available to assist the teams in solving the problems identified; the reasons for the lack of remedial action are unclear. Subsequent administrative changes, however, resulted in increased support for individualizing instruction through the team approach.

IMPLICATIONS

In the past decade team teaching has become an increasingly popular innovation in public schools, but assessment of the effectiveness of this approach is difficult because of the lack of large scale, well-established team-teaching projects with well-defined and measurable goals. We have reported some problems associated with an attempt to establish team teaching in two schools in a traditional school district. The results demonstrate

the need for administrative sanction and active support to provide the facilitating environment in which an innovation can be sustained long enough for its usefulness to be assessed.

Educational institutions are by their very nature resistant to change (Chase¹⁹). The involvement and commitment of both crucial administrators and teachers in program planning are essential to develop an innovation. Encouragement from high levels is needed to help teachers and principals withstand both the intrinsic frustrations and the external criticism inevitably associated with attempts to change a traditional system. Furthermore, direct support from the central administration is necessary to individualize instruction; teachers need extra resources, architectural alterations, and freedom to make revisions in the curriculum, in evaluation and reporting procedures, and in schedules.

In the present study the TTPC brought into sharp focus some major problems in individualizing instruction which were remediable only through strong administrative intervention. The TTPC would be of greatest value if it were administered (1) at the beginning and at progressive stages of such a program and (2) if the results were explored in open and continuing dialogue between teams and administrators. Productive communication might be stimulated if principals and central administrators predicted team scores on the four factors and if the discrepancies between predicted and obtained scores were used to guide discussions of problems, attitudes, and team functioning.

The normative data which could be obtained from a larger and more heterogeneous sample of teams would be useful for comparative purposes.

NOTES

1. This research was supported by the Research and Development Center for Teacher Education, The University of Texas at Austin, under U.S.O.E. Contract 6-10-108.
2. The authors wish to express their gratitude to the Austin Independent School District and especially to Kenner Isbell and R. D. Evans for their cooperation in this research and to Dr. Don Veldman for his assistance in data analyses.
3. G. Heathers, "Research on Team Teaching," in J. T. Shaplin and H. F. Olds, Jr. (Eds.), Team Teaching. New York: Harper and Row, 1964, pp. 306-344.
4. R. Nystrand and F. Bertolaet, "Strategies for Allocating Human and Material Resources," Review of Educational Research, 1967, 37, pp. 323-336.
5. B. R. Joyce, "Staff Utilization," Review of Educational Research, 1967, pp. 323-336.
6. G. Ackerlund, "Some Teacher Views on the Self-Contained Classroom," Phi Delta Kappan, Vol. XL, April, 1959, pp. 283-285.
7. H. S. Davis, "The Effect of Team Teaching on Teachers." Doctor's thesis. Detroit, Michigan: Department of Education, Wayne State University, 1963. 369 pp.
8. Norwalk Plan: An Attempt to Improve the Quality of Education Through a Team-Teaching Organization: A Two-Year Study Supported by the Fund for the Advancement of Education, Norwalk, Conn., Nov. 14, 1960.

9. T. A. McIntosh and I. J. Ryan, Evaluations of Team Teaching in Hawaii's Schools. Five Year Report: 1960-1965. Education Research and Development Center, College of Education, University of Hawaii, Honolulu, Hawaii, March, 1965.
10. D. A. Myers, "An Analysis of Team Meetings," Educational Administration Quarterly, Winter, 1971, Vol. 7, No. 1, pp. 8-23.
11. This instrument is available from the authors upon request.
12. The team teaching project described was developed by the Austin Independent School District in collaboration with the Research and Development Center for Teacher Education of The University of Texas at Austin.
13. J. Gallessich and I. Iscoe, "Student Teacher Reactions to Training in Team-Teaching Schools," California Journal of Education Research (in press).
14. J. Gallessich, I. Iscoe, and S. Payne, "Team Teaching: A Study of Team Development and Interpersonal Functioning," National Elementary Principal (in press).
15. J. Gallessich and L. Schmidt, "School Adjustment of First-Graders in Team-Teaching and Self-Contained Classrooms," Proceedings, 76th Annual Convention, APA, 1968, pp. 601-602.
16. L. Schmidt and J. Gallessich, "Adjustment of Anglo-American and Mexican-American Pupils in Self-Contained and Team-Teaching Classrooms," Journal of Educational Psychology (in press).
17. J. York, Team Teaching Modules. Dallas, Texas: The Leslie Press, 1971.

18. The factor-analytic procedure used here is detailed by Don Veldman in Fortran Programming for the Behavioral Sciences, New York: Holt, Rinehart, and Winston, 1967. Principal axis factors were extracted from the correlation matrix of items and rotated toward simple structure by the varimax method. Factor scores were computed by means of regression equations including all items.
19. F. S. Chase, "School Change in Perspective," The Changing American School, NSSE Yearbook, LXV, 1966, Part 2, pp. 271-306.